FORM 11641 - PWO.

CHARLE MADE

FEB 17 1982

## MATERIAL SAFETY DATA SHEET

		SECT	ION I			
MANUFACTURER'S NAME			1	EMERGENCY TELEPHONE NO.		
3M COMPANY	200		(612) /33-232	(612)733-2328		
ADDRESS (Number, Street, City, State, and 3M CENTER, ST. PAUL,	MINNE	SOTA 5	5101			
CHEMICAL NAME AND SYNONYMS			TRADE NAME AND SYNONYMS SCOTCHWELD Brand St	ruct	ural	
CHEMICAL FAMILY Nitrile/phenolic	Adhesive Films AF-6,13,13-5,15,30,31,32)					
SEC	TION II		RDOUS INGREDIENTS		TLV	
PAINTS, PRESERVATIVES, & SOLVEN	NTS 9	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	(Units)	
PIGMENTS			BASE METAL			
CATALYȘT			ALLOYS			
VEHICLE			METALLIC COATINGS			
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX			
ADDITIVES	-		OTHERS			
OTHERS						
	YTIIRES O	F OTHER LI	QUIDS, SOLIDS, OR GASES	%	TLV (Units)	
None						
None						
None	SECT	ON III -	PHYSICAL DATA			
BOILING POINT (°F.)	SECT	ON III -	PHYSICAL DATA  SPECIFIC GRAVITY (H2O=1)	N	I.A.	
	SECT	N.A.		N	J.A. 0	
BOILING POINT (°F.)	SECT	N.A. N.A.	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE			
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)		N.A. N.A.	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)		0	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER	Not	N.A. N.A. N.A.	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE ( = 1)		0	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f	Not Film a	N.A. N.A. soluble	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.		0	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f	Not Film a	N.A. N.A. soluble	SPECIFIC GRAVITY (H2O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E — essentially no odor.  EXPLOSION HAZARD DATA		0 I.A.	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f	Not film a	N.A. N.A. soluble	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.		0	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f  SECTION  FLASH POINT (Method used) N.A.	Not film a	N.A. N.A. soluble	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.  EXPLOSION HAZARD DATA  FLAMMABLE LIMITS Lei		0 I.A.	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f  SECTION  FLASH POINT (Method used) N.A.	Not film a	N.A. N.A. soluble dhesive	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.  EXPLOSION HAZARD DATA  FLAMMABLE LIMITS Lei		0 I.A.	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f  SECTION  FLASH POINT (Method used) N.A.  EXTINGUISHING MEDIA Wate	Not film a	N.A. N.A. soluble dhesive	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.  EXPLOSION HAZARD DATA  FLAMMABLE LIMITS Lei		0 I.A.	
BOILING POINT (°F.)  VAPOR PRESSURE (mm Hg.)  VAPOR DENSITY (AIR=1)  SOLUBILITY IN WATER  APPEARANCE AND ODOR Solid f  SECTION  FLASH POINT (Method used) N.A.  EXTINGUISHING MEDIA Wate	Not film a NIV - F er, CO	N.A. N.A. soluble dhesive IRE AND 2, foam	SPECIFIC GRAVITY (H <sub>2</sub> O=1)  PERCENT, VOLATILE BY VOLUME (%)  EVAPORATION RATE (=1)  E - essentially no odor.  EXPLOSION HAZARD DATA  FLAMMABLE LIMITS Lei		0 I.A.	

N.A. = not applicable PAGE (1)

(Continued on reverse side)

SECTION VI - REACTIVITY DATA  STABLE   CONDITIONS TO AVOID  STABLE   X    INCOMPATABILITY   UNSTABLE   CONDITIONS TO AVOID  STABLE   X    INCOMPATABILITY   Marriels to dwald  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS   MAY OCCUR   CONDITIONS TO AVOID  WILL NOT OCCUR   X    SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED   N.A.  WASTE DISPOSAL METHOD   TINCING TO AVOID   N.A.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify Type)  VENT LATION   MECHANICAL (General)   FOR CUITING OVENS.   SPECIAL    PROTECTIVE GLOVES   EYE PROTECTION   SPECIAL    PROTECTIVE GLOVES   EYE PROTECTION    OTHER PROTECTIVE EQUIPMENT		SI	ECTION '	V - HEAL	TH HAZARD DA	ATA	
SECTION VI - REACTIVITY DATA  STABILITY  UNSTABLE STABLE STABLE INCOMPATABILITY (Materials to evoid)  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS DECOMPOSITION PRODUCTS  WILL NOT OCCUR WILL NOT OCCUR SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  N.A.  WASTE DISPOSAL METHOD INCLINETATE O' landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION  WECHANICAL (General)  PROTECTIVE GLOVES OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	THRESHOLD LIMIT	VALUE N.A.					
SECTION VI - REACTIVITY DATA  STABILITY  UNSTABLE STABLE X  INCOMPATABILITY (Metrials to avoid)  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS DECOMPOSITION PRODUCTS  WILL NOT OCCUR WILL NOT OCCUR X  SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD INCINETATE O' Landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION  LOCAL EXHAUST MECHANICAL (General) PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	EFFECTS OF OVERE	None None	expec	ted.			
SECTION VIII - SPECIAL PROTECTION INFORMATION  SECTION VIII - SPECIAL PROTECTION SPECIAL  SECTION VIII - SPECIAL PROTECTION  RESPIRATORY PROTECTION (Specify type)  VENTILATION  LOCAL EXHAUST X  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	EMERGENCY AND F	FIRST AID PROCEDU	JRES				
SECTION VIII - SPECIAL PROTECTION INFORMATION  SECTION VIII - SPECIAL PROTECTION SPECIAL  SECTION VIII - SPECIAL PROTECTION  RESPIRATORY PROTECTION [Specify Type]  VENTILATION  LOCAL EXHAUST X  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  INCOMPATABILITY (Materials to avoid)  X  CONDITIONS TO AVOID  CONDITIONS TO AVOID  CONDITIONS TO AVOID  CONDITIONS TO AVOID  AND CONDITIONS TO AVOID  CONDITIONS TO AVOID  CONDITIONS TO AVOID  N.A.  SECTION VIII - SPILL OR LEAK PROCEDURES  N.A.  SECTION IN A.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION [Specify Type]  VENTILATION  CONDITIONS TO AVOID  AND CONDITIONS TO AVOID  N.A.  SECTION IX - SPECIAL PROTECTION  SECTION IX - SPECIAL PRECAUTIONS							
STABILITY  UNSTABLE STABLE X  INCOMPATABILITY (Micrials to avoid)  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS POLYMERIZATION  MAY OCCUR WILL NOT OCCUR X   SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  INCINETATE DISPOSAL METHOD  INCINETATE OF PROTECTION (Specify type)  VENTILATION  LOCAL EXHAUST MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PROCECTION  SECTION IX - SPECIAL PRECAUTIONS							
SECTION VIII - SPECIAL PROTECTION INFORMATION  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION  LOCAL EXHAUST X FOR CUITING OVERS  OTHER PROTECTIVE EQUIPMENT  STABLE X X SONDITION STORAGE AND			SECTIO	NVI - RE	ACTIVITY DAT	TA	
INCOMPATABILITY (Materials to avoid)  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS DECOMPOSITION PRODUCTS  WILL NOT OCCUR X CONDITIONS TO AVOID  SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD IN CONTROL OF THE PROTECTION (Specify type)  VENTILATION COCAL EXHAUST X FOR CURING OVERS.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	STABILITY	LINSTABLE	CONDITIONS TO AVOID				
INCOMPATABILITY (Materials to avoid)  HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS POLYMERIZATION  MAY OCCUR WILL NOT OCCUR X  SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD INCINETATE O' landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS							
HAZARDOUS DECOMPOSITION PRODUCTS  HAZARDOUS POLYMERIZATION  MAY OCCUR WILL NOT OCCUR X   SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD INCINERATE O' landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify Type)  VENTILATION  LOCAL EXHAUST MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	INCOMPATABILITY	1	^	L			
MAY OCCUR  WILL NOT OCCUR  X  SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  N.A.  WASTE DISPOSAL METHOD INCINERATE Or landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify Type)  VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS			JCTS				
SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD INCINERATE OR TOTAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X FOR CURING OVENS.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS					CONDITIONS TO A	VOID	
SECTION VII - SPILL OR LEAK PROCEDURES  STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N.A.  WASTE DISPOSAL METHOD TRICINERATE OR TOTAL AND	HAZARDOUS		MAY OCCUR				
WASTE DISPOSAL METHOD IN accordance with local regulations.    SECTION VIII - SPECIAL PROTECTION INFORMATION	- FOCTIME TO THE	WILL NOT	OCCUR	X			
WASTE DISPOSAL METHOD Inclinerate or landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS							
WASTE DISPOSAL METHOD Inclinerate or landfill in accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS				COLLA	OR LEAK PROC	EDURES	
WASTE DISPOSAL METHOD IN accordance with local regulations.  SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS							
SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	STEPS TO BE TAK	EN IN CASE MATER	TIAL IS RE		N.A.		
SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	,						
SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS							
SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify type)  VENTILATION LOCAL EXHAUST X For curing ovens.  MECHANICAL (General) OTHER  PROTECTIVE GLOVES EYE PROTECTION  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	WASTE DISPOSAL	or landfil	.l in a	accordan	ce with loc	al regulations.	
SECTION VIII - SPECIAL PROTECTION INFORMATION  RESPIRATORY PROTECTION (Specify Type)  VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	111021102400						
RESPIRATORY PROTECTION (Specify Type)  VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS						•	
RESPIRATORY PROTECTION (Specify Type)  VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS							
VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS		SECTIO	N VIII -	SPECIAL	PROTECTION IN	IFORMATION	
VENTILATION  LOCAL EXHAUST X For curing ovens.  MECHANICAL (General)  PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	RESPIRATORY PR	OTECTION (Specify	type)				
PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	VENTU ATION	LOCAL EXHAUST X For curing over					
PROTECTIVE GLOVES  OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	VERTIEATION	MECHANICAL (					
OTHER PROTECTIVE EQUIPMENT  SECTION IX - SPECIAL PRECAUTIONS	CVC PROTECTION						
SECTION IX - SPECIAL PRECAUTIONS							
	JIMER PROTECT						
			SECTIO	N IX - SPE	CIAL PRECAU	TIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Refrigerated storage required. See product specification sheet for	PRECAUTIONS TO	O BE TAKEN IN HA					

Allow film to warm to room temperature before using.

OTHER PRECAUTIONS longed storage at room temperatures will harm performance of product.

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details.

Pro-